

CLAIMS

- 5 1. A solid stick insecticidal composition comprising a base, an insecticide and at least 60 wt% food material.
- 10 2. An insecticidal composition according to claim 1 comprising at least 65, preferably at least 70 and more preferably at least 75 wt% food material.
3. An insecticidal composition according to claim 1 or claim 2 comprising up to 99.99 wt% food material.
- 15 4. An insecticidal composition according to any preceding claim comprising food material selected from
 - (i) carbohydrates;
 - 20 (ii) protein/carbohydrate containing materials;
 - (iii) fatty or oily materials; and mixtures thereof.
5. An insecticidal composition according to claim 4, in which the carbohydrates are selected from
 - 25 (i) honey;
 - (ii) sugars including monosaccharides and dissaccharides;
 - (iii) polysaccharides and complex carbohydrates including cellulosic materials, pectin and starches; and mixtures thereof.

6. An insecticidal composition according to claim 4 or claim 5, in which the protein/carbohydrate containing materials are selected from:
- 5 (i) cereal products,
 - (ii) flour, including soya flour;
 - (iii) spices;
 - (iv) vegetable products including dehydrated vegetables;
 - (v) dried yeast;
 - 10 (vi) egg powder;
 - (vii) insect-derived materials including silkworm pupa, eggs and body parts; and mixtures thereof.
7. An insecticidal composition according to any one of
- 15 claims 4 to 6, in which the fatty or oily materials are selected from:
- (i) lipids;
 - (ii) essential oils;
 - (iii) fully hydrogenated fatty acids;
 - 20 (iv) vegetable oils;
 - (v) animal-derived fats;
 - (vi) esters;
 - (vii) waxes;
 - (viii) soaps;
 - 25 (ix) phospholipids;
 - (x) glycolipids;
 - (xi) terpenes;
 - (xii) steroids; and mixtures thereof.
- 30 8. An insecticidal composition according to any preceding claim comprising at least 10, preferably at least 20 and more preferably at least 30 wt% base ingredients.
- 35 9. An insecticidal composition according to any preceding claim comprising base ingredients selected

from fatty alcohols, fatty acids, various esters including lower alkyl esters of fatty acids, castor oil, mineral oils, petroleum jellies, polyethylene glycols, monoalkanolamides, carnauba wax, candelilla wax, amorphous hydrocarbon waxes, petroleum-based waxes including microcrystalline waxes, beeswax, paraffin waxes, cocoa butter, hydrogenated vegetable oils, lanolin, lanolin absorption bases, paraffin oils, lecithin, silicone waxes, flour, monoglycerides and animal derived-fats including tallow, lard, suet and duck fat.

10. An insecticidal composition according to any preceding claim comprising one or more dual functionality materials acting as both a food material and a base ingredient.
11. An insecticidal composition according to claim 10, in which the dual functionality material is selected from hydrogenated palm stearine, tallow, lard, suet, duck fat, monoglycerides, flours and lecithins.
12. An insecticidal composition according to any preceding claim in which the base comprises one or more emulsifying agents.
13. An insecticidal composition according to any preceding claim, in which the insecticide is selected from pyrethroids, neonicotinoids, avermectins, spinosyns, hydramethylnon, fluorinated sulfluoramides, organophosphates, pyrazoles, chlorfenapyr, indoxacarb, borates, benzoylphenyl ureas, carbamates, hydrazones and mixtures thereof.
14. An insecticidal composition according to claim 13, in which the insecticide comprises an organophosphate.

15. An insecticidal composition according to claim 14, in which the organophosphate is chlorpyrifos.
- 5 16. An insecticide according to claim 13, in which the insecticide comprises a pyrazole.
17. An insecticide according to claim 16, in which the pyrazole is fipronil.
- 10 18. An insecticide according to claim 13, in which the insecticide comprises an indoxacarb.
19. An insecticidal composition according to any preceding claim comprising insecticide in an amount
15 of from 0.01 to 40 wt%, preferably from 0.01 to 20 wt% and more preferably from 0.01 to 10 wt%.
20. An insecticidal composition according to any preceding claim comprising an attractant.
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21. An insecticidal composition according to claim 20, in which the food material also functions as an attractant.
- 25 22. An insecticidal composition according to claim 21, in which soya bean oil is a food material and an attractant.
- 30 23. An insecticidal composition according to claim 21 or claim 22, in which honey is a food material and an attractant.
- 35 24. An insecticidal composition according to any one of claims 21 to 23, in which malt extract is a food material and an attractant

25. An insecticidal composition according to any one of claims 21 to 24, in which maple lactone is a food material and an attractant.
- 5 26. An insecticidal composition according to claim 25, in which maple lactone is present in an amount of from 0.001 to 1 wt%, preferably from 0.005 to 0.5 wt %.
- 10 27. An insecticidal composition according to any one of claims 20 to 26 comprising an attractant which does not function as a food material.
- 15 28. An insecticidal composition according to any preceding claim further comprising a preservative.
- 20 29. An insecticidal composition according to claim 28, in which the preservative is present in an amount of from 0.0001 to 10 wt%.
- 30 30. An insecticidal composition according to claim 28 or claim 29, in which the preservative is selected from sorbic acid and salts thereof, methylparaben, propylparaben and mixtures thereof.
- 25 31. An insecticidal composition according to any preceding claim further comprising an anti-oxidant.
- 30 32. An insecticidal composition according to claim 31, in which the anti-oxidant is present in an amount of from 0.0001 to 10 wt%.
- 35 33. An insecticidal composition according to claim 31 or claim 32, in which the anti-oxidant is selected from TBHQ, butylated hydroxytoluene, butylated hydroxyanisole and mixtures thereof.

34. An insecticidal composition according to any preceding claim further comprising a human taste deterrent
- 5 35. An insecticidal composition according to claim 34, in which the human taste deterrent is present in an amount of from 1 to 200 ppm.
- 10 36. An insecticidal composition according to claim 34 or claim 35, in which the human taste deterrent is denatonium benzoate.
- 15 37. An insecticide composition according to any preceding claim further comprising a colorant.
38. An insecticidal composition according to any preceding claim further comprising one or more other components selected from feeding stimulants, and
- 20 fillers and animal taste deterrents.
39. An insecticidal composition according to any preceding claim having a penetration hardness of from 0.1 to 10 mm.
- 25 40. An insecticidal composition according to any preceding claim having a penetration hardness of from 0.5 to 5 mm.
- 30 41. An insecticidal composition according to any preceding claim having a melting point of at least 20 °C, preferably at least 35 °C, more preferably at least 40 °C and most preferably at least 45 °C.
- 35 42. An insecticidal composition according to any preceding claim having a setting point in the range

from 20 to 200°C, preferably from 30 to 70°C and more preferably from 45-55 °C.

- 5 43. A method for controlling insects in which a solid stick insecticidal composition according to any one of claims 1 to 42 is applied and deposited on to a hard surface to be treated.
- 10 44. A method for controlling insects according to claim 43, in which the insecticidal composition is applied as a line of material by drawing the stick along the surface.
- 15 45. A method for controlling insects according to claim 43, in which the insecticidal composition is applied as a series of spots on the surface.
- 20 46. A method for controlling insects according to claim 43, in which the insecticidal composition is applied as a smear on the surface.
47. A method for controlling insects according to any one of claims 43 to 46, in which the insects which crawl.
- 25 48. A method for controlling insects according to claim 47, in which the insects are cockroaches.
- 30 49. An insect control product comprising a solid stick insecticidal composition according to any one of claims 1 to 42 and a package.
50. An insect control product according to claim 49 in which the package comprises a protective wrapping.

51. An insect control product according to claim 50 in which the protective wrapping comprises paper, plastic, fabric, metal foil or laminates.
- 5 52. An insect control product according to claim 50 or claim 51, in which the wrapping includes tear lines or points of weakness at intervals along the length of the wrapping thus allowing for progressive removal of circumferential strips of wrapping from the stick.
- 10 53. An insect control product according to claim 49 in which the package comprises an applicator including a bottom, in which is held one end of the stick, and a tubular lid, which partially or fully encloses the
- 15 insecticidal stick.
54. An insect control product according to claim 49 in which the package comprises an applicator in which the insecticidal stick is extendable from a casing.
- 20 55. An insect control product according to any one of claims 49 to 54 in which the package comprises a label or a label is applied to the package.
- 25 56. Use of an insecticide and a food material in the manufacture a solid stick insecticidal composition according to any one of claims 1 to 42 for application to a hard surface to be treated.